AMENDMENTS TO THE CLAIMS

1. (Cancelled).

2. (Previously Presented) Apparatus as claimed in Claim 17 in which the second substrate is a lenticular screen; the first convergent means comprises a first cylindrical lens element of said screen; said lenticular screen includes lens elements adjacent to said first cylindrical lens element; and the first orthogonal plane is orthogonal to the longitudinal axis of said first cylindrical lens element.

3. (Original) Apparatus as claimed in Claim 2 including elongate aperture means fixed with respect to the lenticular screen and arranged to block light which passes through lens elements adjacent to the first cylindrical lens element.

4. (Previously Presented) Apparatus as claimed in Claim 3 in which the aperture means comprises an opening in an opaque coating on a portion of the front surface of the lenticular screen.

5. (Previously Presented) Apparatus as claimed in Claim 17 in which the widths of the light and dark regions are determined

by locating, with the first image detection means, at least three boundaries between the images of said light and dark regions within said first image portion thereby providing the data to unambiguously define the identity of one of the corresponding juxtaposed stripes and the location thereof along the first object axis relative to the first convergent means.

6.   (Cancelled).

7.   (Previously Presented) Apparatus as claimed in Claim 18 in which the position along the first object axis provides a first ordinate; the position along the second object axis provides a second ordinate; and said first and second ordinates are combined to provide the position of the first substrate relative to the second substrate.

8.   (Original) Apparatus as claimed in Claim 7 in which the first and second patterns are tapered so that the width of each stripe reduces from one end to the other.

9.   (Previously Presented) Apparatus as claimed in Claim 7 in which the first object axis and the second object axis are

inclined with respect to each other and, in use, the position of the first substrate relative to the second substrate is provided in two orthogonal directions.

10. (Previously Presented) Apparatus as claimed in Claim 7 in which the second substrate is a lenticular screen having a tapered structure in which the first convergent means comprises a first cylindrical lens element of said screen having a first principal axis and the second convergent means comprises a second cylindrical lens element of said screen spaced from said first lens element and having a second principal axis and in which said first and second principal axes are inclined with respect to each other.

11. (Original) Apparatus as claimed in Claim 9 comprising means for controlling the relative positions of the substrates in the two orthogonal directions.

12. (Previously Presented) Apparatus as claimed in claim 17 in which at least one of the image detection means comprises a linear CCD array.

13. (Previously Presented) Apparatus as claimed in Claim 17 in which the first substrate comprises a barrier screen and the first and second substrate provide in combination at least one viewing zone for an autostereoscopic display system.

14. (Cancelled).

15. (Previously Presented) The method of Claim 19 which includes locating at least three boundaries between the corresponding light and dark regions in the first image portion and thereby establishing the identity of a corresponding stripe in the first object pattern and the location thereof along the first object axis relative to the first convergent means.

16. (Cancelled).

17. (Currently Amended) An apparatus for defining~~which defines~~ the relative position of two substrates comprised therein~~multiple components thereof~~, said apparatus comprising:

a first substrate having a first plurality of light transmitting and light blocking regions, which aggregately form a first object pattern of juxtaposed stripes in an object plane;

a second substrate having first light converging means fixed

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thereto for substantially collimating in a first orthogonal plane, said first orthogonal plane being orthogonal to said object plane, light from points of said first object pattern;

reimaging means for reimaging the ~~substantially~~ collimated light ~~in a first image plane and forming~~to form a first image pattern corresponding to said first object pattern; and

first image detection means positioned at said first image pattern for capturing and analyzing a first image portion, said first image portion comprising a portion of said first image pattern,

wherein the first object pattern is arranged to comprise alternating and juxtaposed ones of said light transmitting and light blocking regions so that each said region has one of a selection of different widths and any combination of at least two juxtaposed said regions defines a sequence which is unique within said first object pattern;~~non-repeating and said first image portion, corresponding to said juxtaposed stripes, has a sequence of alternating and juxtaposed light and dark regions of varying widths,~~

the first image portion is arranged to comprise an image of said unique sequence; and

said first image detection means provides the means for capturing and analyzing said unique sequence to determine, in use,

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~~defining~~ the location of said first image portion within said first image pattern ~~corresponding to said first object pattern, thereby defining~~ and thereby the position ~~along a first object axis~~ of said first substrate relative to said second substrate in said object plane and along a first object axis lying therein and having a direction orthogonal to a long axis of the juxtaposed regions of said first object pattern.

18.   (Previously Presented) Apparatus as claimed in Claim 17 which further comprises:

a second plurality of light transmitting and light blocking regions on the first substrate, which aggregately form a second object pattern of juxtaposed stripes in the object plane;

second light converging means fixed to the second substrate for substantially collimating in a second orthogonal plane, being orthogonal to the object plane, light from points of said second object pattern;

reimaging means for reimaging substantially collimated light in a second image plane and forming a second image pattern corresponding to said second object pattern; and

second image detection means positioned at said second image plane for capturing a second image portion comprising a portion of said second image pattern,

wherein the second object pattern is non-repeating and said second image portion, corresponding to said juxtaposed stripes, has a sequence of alternating and juxtaposed light and dark regions of varying widths, said sequence defining the location of said second image portion within said second image pattern corresponding to said second object pattern, thereby defining the position along a second object axis of said first substrate relative to said second substrate.

19. (Currently Amended) A method for defining the relative position of two substrates, said method comprising:

providing a source of light;

positioningproviding a first substrate at a position relative to a second substrate and intermediate said, the first substrate being located intermediate the second substrate and saidthe source of light, the second substrate including first light converging means;

formingproviding a pattern comprising a plurality of light providingtransmitting and light inhibitingblocking regions as juxtaposed stripes to provide a first object pattern in an object

plane, said object plane being comprised within said first substrate;

fixing first light converging means to said second substrate;

substantially collimating in a first orthogonal plane, said first orthogonal plane being orthogonal to said~~the~~ object plane, light from points of said first object pattern;

reimaging said~~the~~ substantially collimated light in a first image plane and forming a first image pattern corresponding to at least a portion of said first object pattern; ~~and~~

positioning first image detection means at said first image pattern;

capturing~~, using~~ a first image portion comprising a portion of said first image pattern with said first image detection means~~, a first image portion comprising a portion of said first image pattern~~; and

wherein the pattern forming step includes providing said light providing and light inhibiting regions with a selection of different widths and juxtaposing said light transmitting and light blocking regions so that any at least two juxtaposed said regions comprise a sequence which is unique within said object~~stripes and gaps between the stripes of varying widths, thereby creating a non-repeating~~ pattern; ~~and~~

said first image portion comprises an image of said unique

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sequence; and

the analyzing~~capturing~~ step includes ~~defining~~ analyzing said image of said unique sequence and thereby the location of said unique sequence ~~first image portion~~ within the first object~~image~~ pattern ~~by reference to a captured portion of said non-repeating pattern~~ and ~~thereby~~ the position of said first substrate relative to said second substrate in said object plane and along a first object axis lying therein and having a direction orthogonal to a long axis of said juxtaposed regions of said first object pattern~~along a first object axis of said first substrate relative to said second substrate~~.

20. (Previously Presented) The method of Claim 19, wherein the second substrate further includes second light converging means and the method further comprises:

providing a second pattern comprising a plurality of light transmitting and light blocking regions as juxtaposed stripes inclined to the stripes of the first pattern to provide a second object pattern in the object plane;

substantially collimating with the second light converging means in a second orthogonal plane, being orthogonal to the object plane and inclined with respect to the first orthogonal plane, light from points of said second object pattern; and

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reimaging light from the second light converging means in a second image plane and forming a second image pattern corresponding to said second object pattern;

capturing, using second image detection means, a second image portion comprising a portion of said second image pattern;

wherein the second pattern includes stripes and gaps between the stripes of varying widths, thereby forming a second non-repeating pattern; and

the capturing step includes determining the location of said second image portion within the second image pattern by reference to a captured portion of said non-repeating pattern and, thereby, the position along a second object axis of said first substrate relative to said second substrate and the relative position in two orthogonal directions of the first substrate relative to the second substrate.